



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,031	12/10/2003	Yuki Sasaki	118048	5154
7590 OLIFF & BERRIDGE P.O. BOX 19928 ALEXANDRIA, VA 22320		09/12/2007	EXAMINER ROGERS, JAMES WILLIAM	
			ART UNIT 1618	PAPER NUMBER
			MAIL DATE 09/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/731,031	Applicant(s) SASAKI ET AL.	
	Examiner James W. Rogers, Ph.D.	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The amendments to the claims filed 07/05/2007 have been entered. Applicants have amended claim 15, 19 and 20 and cancelled claim 17.

Response to 37 CFR 1.132

The declaration under 37 CFR 1.132 filed 07/05/2007 is insufficient to overcome the rejection of claims 1-16 and 18 based upon Sasaki et al. (US 6,893,649, '649 from hereon) and (US 2003/0044370, '370 from hereon) as set forth in the last Office action because: applicants declaration only shows a narrow interpretation of the Sasaki references taken from only one example of each reference, the examples within the Sasaki references were given solely for the purpose of illustration and were not to be construed as being limiting to their invention since many variations are possible without departing from the spirit and scope of the invention. Furthermore it appears as though applicants have chosen to show only examples from Sasaki which are spherical in nature when clearly Sasaki discloses that spherical particles are not the only embodiment and are not even preferred. The Sasaki application teaches that particles with an SF1 of less than 110 are spherical with good spreadability but have inefficient affinity to skin, and particles with an SF1 above 140 have unevenness on the surface of the resin, which improves skin adhesion, but spreadability becomes insufficient. See [0027] and [0028] of '370 and col 4 lin 65-col 5 lin 13 of '649. Applicants affidavit only shows particles that are essentially spherical in nature ($a=b=c$), when clearly this is not the only embodiment of the Sasaki references which actually teaches the disadvantages of such essentially spherical particles.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-15 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki et al. (US 2003/0044370), for the reasons set forth in the office action mailed 03/08/2007.

Claims 1-15 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki et al. (US 6,893,649), for the reasons set forth in the office action mailed 03/08/2007.

Response to Arguments

Applicant's arguments filed 07/05/2007 have been fully considered but they are not persuasive.

Applicants assert that neither Sasaki et al. '370 or '649 disclose a resin powder having particles that satisfy the equation of claim 1 which must be met for all pending claims. Applicants assert that the first affidavit filed 12/15/2006 was sufficient to overcome the rejections above and argue that it is the offices burden to establish evidence as to why the affidavit was insufficient. Applicants also now submit a second affidavit which they purport shows that the Sasaki references fail to satisfy the projected particle dimensions. Applicants lastly assert that SF1 and the dimensions b/a and c/b are not dependent upon one another.

Firstly as already stated in the past office actions the dimensions of a,b and c as claimed in ratios by applicants is inherent from the teachings of the Sasaki references. The examiner has relied upon this logic because the SF1 factor claimed by applicants and disclosed within Sasaki are the same, 110-140. SF1 factors are determined by the following equation as claimed by applicants:

$$SF1 = (ML^2/A) \times (\pi/4) \times 100$$

Where ML is the maximum length and A represents area. Since it appears applicants invention is drawn to a rugby ball or elliptical shaped particle it would be closest to an ellipsoid in shape. The area of an ellipsoid can be calculated by the equation below"

$$A = 2\pi \left(c^2 + b\sqrt{a^2 - c^2}E(\alpha, m) + \frac{bc^2}{\sqrt{a^2 - c^2}}F(\alpha, m) \right),$$

Clearly to calculate the area above all of the Cartesian coordinates a,b and c are expressed in the equation. Therefore SF1 is clearly dependent upon a,b and c. Thus it

Art Unit: 1618

is inherent that the Sasaki references teach the same dimensions as those claimed by the applicant since the surface area claimed is the same and the application teaches a non-spherical particle in which the dimensions of a,b,c in applicants application can fall within the range of the claimed SF1 values and volume of the particle described in the Sasaki references. Applicant's assertions within the affidavits are insufficient to overcome the rejections over the Sasaki references. The reasoning above for why the second affidavit is insufficient is incorporated herein. As already stated by the examiner in the previous office action the first affidavit filed 03/08/2007 was insufficient because it only provided one working example from the two Sasaki references. Clearly the examples within Sasaki were given solely for the purpose of illustration and were not to be construed as being limiting to their invention since many variations are possible without departing from the spirit and scope of the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 1618

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 2003/0044370) in view of Sakuma (US 2003/0023021 A1), for the reasons set forth in the office action filed 03/08/2007.

Response to Arguments

Applicant's arguments filed 07/05/2007 have been fully considered but they are not persuasive.

Applicant asserts that Sakuma does not remedy the deficiencies of Sasaki et al. '370 with respect to the particle dimensions. Applicants further state that while Sakuma does teach shaping particles Sakuma teaches away from the particles defined by applicants. Applicants state that their particles are elliptical shaped similar to a rugby ball, while Sakuma teaches particles with a boundary line which are shaped differently from the particles of the present application.

The relevance of these assertions is unclear. The arguments above for '370 are incorporated herein as well. As currently claimed applicants do not claim an elliptical or "rugby-shaped particle" so whether or not Sakuma teaches these shapes would appear to be moot. Besides the above from the figures within Sukuma it appears as though several of the particles are elliptical in shape, even though they do have a boundary-

Art Unit: 1618

line, which is not precluded from applicants claims. Sakuma was only combined with '370 to show that it was obvious to use high pressure dispensing machine such as a nanomizer to crash particles against a vessel wall. It would have been obvious to someone of ordinary skill in the art that they could process the particles disclosed within '370 with the nanomizer described within Sakuma. Since the particles of Sakuma are processed in the same manner disclosed by applicants it is obvious that the particles formed by combining '370 and Sakuma would have the same dimensions as currently claimed by applicants.

Conclusion

No claims are allowed at this time.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Rogers, Ph.D. whose telephone number is (571) 272-7838. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on (571) 271-0616. The fax phone number for the organization where this application or proceeding is assigned is 572-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER